Federal Democratic Republic of Ethiopia

☞ EDICT OF GOVERNMENT ☜

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ET 298 (2001) (English): EDIBLE SALT - SPECIFICATION

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**ETHIOPIAN
STANDARD**

ES 298:2001
(Reaffirmation:2012)

Second edition

Edible salt — Specification

ICS: 67.220.20
Published by Ethiopian Standards Agency

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Foreword

This Ethiopian Standard has been prepared under the direction of the Technical Committee for Food additives and Contaminats (TC 21) and published by the Ethiopian Standards Agency (ESA).

The standard is a reaffirmation for reprint of the Ethiopian Standard ES 298:2001, Edible salt - specification, with some editorial changes without altering the technical contents in the former text.

Edible salt — Specification

1 Scope

This Ethiopian Standard specifies the requirements for edible salt used as an ingredient of food, both for direct sale to the consumer and for food manufacture.

2 Normative references

The following standards contain provisions, which through reference in this text, constitute the provisions of this Ethiopian Standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this Ethiopian Standard are encouraged to investigate the possibility of applying the most recent editions of the Ethiopian Standards indicated below. Registers of currently valid standards are maintained in the Quality and Standards Authority of Ethiopia.

ES 299:2001, *Edible Salt, Sampling*.

ES 308:2001, *Edible Salt, Determination of Alkalinity.*

ES 309:2001*, Edible Salt, Determination of Lead content*.

ES 310:2001*, Edible Salt, Determination of iron content*.

ES 312:2001*, Edible Salt, Determination of Copper content.*

ES 313:2001, *Edible Salt, Determination of iodine*.

ES 359:2001, *General standard for prepackaged foods - Labelling.*

ES ISO 2479:2001, *Edible Salt, Determination of matter insoluble in water or in acid and preparation of principal solution for other determinations.*

ES ISO 2480:2001, *Sodium chloride for industrial use – Determination of sulphate content - Barium sulphate gravimetric method.*

ES ISO 2481:2001, *Determination of halogens, expressed as chlorine – Mercuremetric method.*

ES ISO 2482:2001, *Edible Salt, Determination of calcium and magnesium content – EDTA complexometric methods.*

ES ISO 2483:2001, *Edible Salt, Determination of loss of mass at 110 °C.*

ES ISO 2590:2001, *Edible salt, Determination of Arsenic content.*

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3 Definitions

For the purpose of this standard, the following definitions shall apply.

3.1
edible salt
iodized common and table salt used as an ingredient of food, both for direct sale to the consumer and for food manufacture

3.2
iodized common salt
iodized salt in the form of crystalline solid or granular, white or pale, pink or light grey in colour, and obtained from sea, from underground rock salt deposits or from natural brine

3.3
iodized table salt
iodized salt produced into fine grain, suitably coated with small quantities of free flowing agents, such as sodium aluminium silicate, tricalcium or magnesium silicate.

4 Requirements

4.1 The iodized common and table salt shall conform to the essential compositions and quality factors, requirements in Table 1 and Table 2.

4.2 All food additives used in table salt shall be of food grade quality and the maximum level of use as indicated in Table 3, 4 and 5.

5 Sampling

Samples shall be taken in accordance with ES 299.

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Table 1 – Essential composition and quality factors for iodized common and table salt

Characteristics	Iodized common salt	Iodized table salt	Test method
Chloride content (as NaCl), % (m/m) , min.	96	98	ES ISO 2481
Iodine content, mg/kg, - as potassium Iodate - as Iodine	 60-80 36-48	 60-80 36-48	 ES 313
Loss of mass at 110°C, % (m/m). max	4	0.5	ES ISO 2483
Matter insoluble in water % (m/m), max.	1	0.2	ES ISO 2479
Calcium (as Ca^{+++}) % (m/m) water soluble, max.	—	0.5	ES ISO 2482
Magnesium (as Mg^{+++}), % (m/m) water soluble, max.	—	0.5	ES ISO 2482
Sulphate (as SO_4), %(m/m),max	0.5	0.5	ES ISO 2480
Alkalinity (as $Na_2 CO_3$), % (m/m), max	0.2	0.2	ES 308

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Table 2 – Contaminants in iodized common and table salt

Contaminant	Requirement	Test method
Lead (Pb), mg/kg, max.	2	ES 309
Iron (Fe), mg/kg, max	10	ES 310
Arsenic (As), mg/kg, max.	0.5	ES ISO 2590
Copper (Cu), mg/kg, max.	2	ES 312

Table 3 – Maximum level for anti-caking agents

Anti-caking agents	Maximum level in the final product
Coating agents, carbonates of calcium and/or magnesium	10 gm/kg singly or in combination
Magnesiumoxide, tricalcium phosphate	8 gm/kg singly or in combination
Silicondioxide, amorphous	20 gm/kg singly or in combination
Silicates of calcium, magnesium, sodiumalumino or sodium-calciumalumino	10 gm/kg singly or in combination
Coating hydrophobic agents, aluminium, calcium, magnesium, potassium, or sodium salts of myristic, palmitic or stearic acid	10 gm/kg singly or in combination
Crystal modifiers : ferrocyanides of calcium-potassium or sodium	10 gm/kg singly or in combination

Table 4 – Maximum level for emulsifiers

Emulsifiers	Maximum level in the final product
Polysorbate 80	10 gm/kg

Table 5 – Maximum level for processing aid

Processing aid	Maximum level in the final product
Dimethylpolysiloxane	10 mg of residue/ kg

6 Packing

Iodized salt shall be packed in suitable, clean and dry containers made of material which does not affect the quality of the salt: materials such as polypropylene bags, clean unused jutebags, or other non-porous material with lining of high density polyethylene to ensure retention of the appropriate iodine level at the time of consumption.

7 Labelling

In addition to the labelling requirements of ES 359 the following specific provisions apply:

a) Type of the product;

b) Name of the manufacturer;

c) Month/Year of manufacture;

d) Lot/Batch number;

e) Level of KIO_3 mg/kg;

f) Expiry Date; and

g) Net weight.

8 Marking

Each container of edible salt shall be marked with the Quality Mark upon approval by the Quality and Standards Authority of Ethiopia.

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Ethiopian Standards Agency

Organization and Objectives

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010.ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1970.

ESA's objectives are:-

- Develop Ethiopian standards and establish a system that enable to check weather goods and services are in compliance with the required standards,
- Facilitate the country's technology transfer through the use of standards,
- Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational Institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/ or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes.
Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.

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